

Photostories: a participatory photo elicitation visual research method in Information Science

Ricardo Gomez¹

¹University of Washington Information School

Abstract: In this paper we discuss the use of Photostories, a participatory visual research method to explore information practices of marginalized and vulnerable communities. Photostories is a method at the intersection of participatory and non-participatory visual methods, drawing from both Photovoice and Photo Elicitation. Photovoice uses participatory photography to empower participants as part of a research process, and Photo Elicitation inserts images into the process of conducting interviews. Though sometimes used interchangeably, Photovoice and Photo Elicitation are different: Photovoice draws from the power of participatory methods to empower participants and their communities through participatory creation of images. Photo Elicitation draws from the power of using images to elicit conversation and meaning as part of the interview process. Our proposed method, Photostories, builds on the power of participatory photography with participant-generated images as part of the research process and the power of Photo Elicitation techniques that introduce images into the research interview for added insight, perspective and depth. By combining these methods, Photostories offers novel insight and meaning that is hard to obtain using only images or only interviews. We describe our uses of Photostories in Library and Information Science (LIS), where visual methods are not widely used, and invite other researchers to use Photostories and other visual research methods in LIS.

Keywords: Photovoice, Photo Elicitation, Participatory photography, Visual research methods

1. Introduction

Visual research methods are gaining much traction in the social sciences (Margolis & Pauwels, 2011). While visual research methods have been used in Library and Information Science (LIS) over the past two decades, their use is still limited. Visual studies in LIS tend to be reported in visual studies literature rather than in more traditional LIS venues. Moreover, there is no clear consensus on what criteria to bring to their review process, how or by whom they should be evaluated, and how to deal with the ethical nuances of some of the participatory approaches in visual studies. For example, in 2012, Hartel and colleagues convened a panel of scholars who began experimenting with visual methods in information behavior research (Hartel, Lundh, Sonnenwald, & Foster, 2012), and in 2016 Matusiak and colleagues convened a panel of scholars to discuss how users seek, select, and organize visual information (Matusiak, Rorissa, Albertson, & Yoon, 2016). Both panels pointed out the relative scarcity of visual research in LIS. Salient trends using visual methods

in LIS include studies of visual information seeking (Kairam, Riche, Drucker, Fernandez, & Heer, 2015), information retrieval (Enser, 2008), and visual analytics (Keim, Mansmann, Schneidewind, Thomas, & Ziegler, 2008; Sun, Wu, Liang, & Liu, 2013), most of which tend to focus on technical dimensions of the visual object and its retrieval or manipulation. For example, some scholars have explored visual representation as communicative practice (Snyder, 2014) and opportunities offered by visual approaches in design (Feinberg, 2017; Snyder et al., 2014). Other studies use more conventional social science methods to study the use of images, e.g., by artists (Hemmig, 2008) or by youth (Given et al., 2016). Fewer studies have explored the potential contribution of qualitative and participatory approaches to visual research in LIS. Pollack offered a literature review of visual methods being used in social sciences, seeking to make visual methods more approachable by LIS researchers (Pollak, 2017). She suggests a typology of visual methods that distinguishes participatory and non-participatory methods. She differentiates usage, creator and interpreter of the images, and concludes by discussing advantages, limitations and ethical considerations of visual methods. She then invites LIS researchers to embrace visual methods, saying that “both participatory and non-participatory visual methods certainly have a future place in LIS research. They are well suited to an interdisciplinary field like LIS, and in particular, to qualitative researchers who are comfortable—even excited about—exploring information worlds filled with vagueness, contradiction, fluidity and movement” (Pollak, 2017, p. 17). For Pollak, the distinction between participatory and non-participatory methods in visual research is key.

In our experience, the space between participatory and non-participatory approaches is a fertile ground for visual research to explore the vague, contradictory, and fluid dimensions of human information behavior. We have been using a visual research method that draws from both participatory and non-participatory approaches to visual research. We called our approach Photostories to emphasize how meaning is obtained through a combination of both images and stories. Photostories draws from Photovoice and Photo Elicitation, two approaches that have been widely used in social science (though less so in LIS). In some instances, Photo Elicitation has used participant-generated images, which further blurs the differences between the two approaches. To clarify the distinct contributions of these two approaches, we introduce Photostories, which uses participant-generated images (in the style of Photovoice) and inserting them into the research interview (in the style of Photo Elicitation) as a way to explore deeper meanings and experiences of the participants. In this way, Photostories harnesses the power of participatory photography to generate images that are meaningful to the research participants, as well as the power of visual elicitation to discuss lived experiences and perspectives in ways that are hard to access in interviews alone.

We use Photostories to elicit information practices with underserved and

marginalized communities such as migrants, refugees, day laborers, and indigenous communities. Similarly, Hicks and Lloyd discuss using Photovoice to understand the information needs and literacy of refugee youth and provide findings to the government and community groups that support those youth. The authors argue that both Photo Elicitation and Photovoice offer researchers the ability to conduct research in communities and locations that may be difficult to reach. In addition, because of their visual nature, they make it easier for participants to portray the information sources they use by supplementing verbal descriptions. Photo Elicitation and Photovoice also “empower participants to represent their own understandings of what information means to them” (Hicks & Lloyd, 2018, p. 234).

We argue that Photostories, with its combination of participatory and non-participatory visual methods (Photovoice and Photo Elicitation) offers an easy-to-use, powerful tool for studying human information behavior. As a visual research method, Photostories can be effectively applied in LIS research and in other disciplines. Photostories combines the power of participatory photography and the community empowerment features of Photovoice, with the power of using images to elicit meanings and lived experiences afforded by Photo Elicitation. The result is a relatively fast and easy way to generate knowledge and elicit deeper meanings and experiences on sensitive topics. Stories and visual illustrations complement and enrich each other, offering a rich multimedia collection of evidence that can be used in analysis, documentation and dissemination of results. Frequently, Photostories participants feel a sense of empowerment through their participation in the project. Such empowerment is the main focus of Photovoice and is a valuable by-product of Photostories.

The remainder of this paper is structured as follows: We first present an overview of Photovoice and Photo Elicitation in the broader context of visual research methods, indicating how Photostories differs from each one, thus warranting its own category as a visual research method. We then discuss the procedures for a Photostories research project, including recruitment of participants, prompts for participatory photography, debriefing interviews, data processing and analysis, and ethical considerations. We follow with a brief description of examples of LIS research that has used Photostories, with attention to variations in the methods employed and the types of results they yielded. We conclude with a discussion of the credibility and trustworthiness of Photostories and its future applicability as a visual research method in LIS.

2. Visual Research and the Place of Photovoice, Photo Elicitation, and Photostories

Overview of Visual Methods

Visual research methods have drawn from studies of culture, representations,

visuality, visual culture, materiality and affect, and affordances of the visual. Berger's *Ways of Seeing* (2008, originally published in 1972) established that we never just look at an image, but at the relation between the image and ourselves. In other words, audiences bring their own interpretations to the meaning of images. Building on Berger (and many others), Rose (2016) suggests a critical approach to interpreting visual images, or a critical visual methodology, based on three principles: taking images seriously; thinking about the social conditions and effects of images and their modes of distribution; and considering your own way of looking at images (Rose, 2016, p. 22). Building on these principles, Rose offers a framework for analyzing visual material that can be used across different disciplines. She suggests four sites to analyze images: 1) the site of production (how the image is made, by whom, when, for whom, why); 2) the site of the image itself (visual effects, composition and visual meanings); 3) the site of circulation (how the image is circulated, by whom, why); and 4) the site of audiencing (how it is displayed, where, and how it is interpreted, by whom, why) (Rose, 2016). In addition to consideration of each of these four sites, for Rose the visual analysis can take on different modalities in each site: technological, compositional or social (Rose, 2016).

Pollak (2017) discusses a variety of visual methods useful in LIS research, divided into whether they are participatory or non-participatory. Non-participatory photography includes documentary, salvage, domestic, ordinary, repeat, survey, and inventory photography and videography. Participatory photography includes elicitation, auto-driving, Photovoice, photo-projective, photo-interview, auto-photography, photo-essay/novel/novella/narrative/diary, and other image, art, and sensory methods. Rose addresses photo documentation, Photo Elicitation, and participatory photography in the same chapter. Other authors also sometimes use these labels interchangeably, creating some confusion or overlap between participatory and non-participatory aspects of visual research methods. We need to more clearly differentiate these visual methods, particularly Photo Elicitation and Photovoice, to better understand their contributions, limitations and complementarities, as well as their relation to our proposed visual method, Photostories. All three visual research methods are primarily concerned with the social modality of the site of audiencing, the site of production, the site of the image itself, and the site of circulation. All make sense only in the context of the site of audiencing, or "the process by which a visual image has its meanings renegotiated, or even rejected, by particular audiences watching in specific circumstances" (Rose, 2016, p. 38). The technological and compositional modalities are secondary to the social modality (including individual) in the site of interpretation. Furthermore, all three visual research methods invoke relations of power in the production, use, and distribution of images. Building on Rose's framework, the researcher plays a key role as facilitator and mediator in the process of understanding the sites of production, circulation, and audiencing of the images. Using visual objects as research data (image as subjective

documentation from participant's perspective), and as a tool to elicit meaning (image as prompt to elicit story), or both (Photostories), the researcher plays an important role in the critical visual research methodology.

Relation between Photostories, Photovoice, and Photo Elicitation

As a way of understanding the place of Photostories and its use of participant-generated images in the Photo Elicitation process, in this section we discuss the use of participatory photography, most commonly known as Photovoice, and its relation to Photo Elicitation, which inserts images as part of the research interview process. For quick reference, the table below summarizes the key differences between the three methods.

Table 1: Comparison between Photovoice, Photostories and Photo Elicitation as Visual Research Methods

	Photovoice	Photostories	Photo Elicitation
Goals	Community empowerment and transformation through participation in research process	Rich research data with participant-generated photos and stories that complement and deepen meanings	Enrich research interview by inserting images for elicitation of new perspectives
Image creation	By participants	By participants or by researchers guided by participants	Mostly by researchers or by third parties
Image use	For community empowerment and transformation	For deeper and richer understanding, documentation in context	For richer understanding

Photovoice

Photovoice was first defined by Wang and Burris (Wang & Burris, 1994; Wang, Burris, & Ping, 1996) as part of their work with Chinese women using participatory photography as part of empowerment education processes in community public health and was inspired by Brazilian educator Paulo Freire's *conscientização* or education for critical consciousness (Freire, 1970). Their initial label was photo novella, later changed to Photovoice, to describe a participatory practice "by which people can identify, represent, and enhance their community through a specific photographic technique. It entrusts cameras to the hand of people to enable them to act as recorders, and potential catalysts for change, in their own communities" (Wang & Burris, 1997, p. 369). According to the authors, Photovoice has three main goals: "(1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through large

and small group discussion of photographs, and (3) to reach policymakers” (Wang & Burris, 1997, p. 370).

Though centered on the use of participatory photography, the main purpose of Photovoice is not the images, but community participation, dialogue, and transformation. In Photovoice, “the photographs are not important by themselves, but they are important for their role in the lives of those who make them” (Harper, 2012, p. 202). The procedure, therefore, is not centered on the production, composition, circulation or audiencing of the images (Rose, 2016), but on the community empowerment and transformation that the participatory process can facilitate. The photographs are not important in themselves but can be important for the role they play in transforming the lives of the people who create them. Photovoice is sometimes positioned against or as an alternative to documentary photography, which is accused of frequently exploiting or spectacularizing the poor and the weak in society (Harper, 2012). Although Photovoice started in public health, it has since been adopted in social work, community development, sociology and anthropology. Harper offers a typology of Photovoice research focused on: 1) empowerment; 2) community health; 3) adapting to illness and recovery; 4) community, class & poverty; 5) education & youth; 6) culture, identity, work; and 7) reviews of literature and ethical implications (Harper, 2012).

Photovoice limitations were already identified in the original description of Photovoice. In their early work, Wang and Burris (1997) mentioned the need to acknowledge the power relations in which Photovoice projects operate, the personal judgment of those participating, and the control of resources used in the project. All of these factors raise important concerns in relation to the participation of subjects, their empowerment, and the transformation of their realities. In a more recent review of Photovoice projects in public health, Catalani and Minkler report three common limitations of Photovoice projects (Catalani & Minkler, 2010): 1) the methods to evaluate Photovoice projects tend to be vaguely described, 2) there are no consistent practices of reporting levels of community participation, and 3) although conceived as a community intervention project, the actual impact at the community level is not well described or assessed. Furthermore, important ethical considerations in Photovoice include exploitation and intrusion with vulnerable populations (Joanou, 2009) and limited advancement of participants’ voices (Evans-Agnew & Rosemberg, 2016). The eradication of power imbalance between researcher and participant is sought by critical researchers but is not an automatic feature of participatory approaches such as Photovoice. Empowerment and community transformation are not necessarily automatic results of participatory work, and power can still be coopted.

Recent examples of Photovoice in LIS research present it as a method for libraries to examine user needs, perceptions or behavior (Luo, 2017), or as a method to assess digital literacy of students as they transition from high school

to college (Given, Opryshko, Julien, & Smith, 2011).

Photo Elicitation

Photo Elicitation, contrary to Photovoice, is based on the idea that inserting a picture into a research interview will help elicit different kinds of responses than through the interview alone (Clark-Ibáñez, 2004). Images can evoke deeper elements of consciousness than can words and engage different sensory experiences. The resulting interview not only provides more information, but different information. Visual elicitation is not limited to photos - it can incorporate paintings, drawings, doodles, objects, etc. Nonetheless, it is most frequently done with photographs.

Photo Elicitation was first named in a paper by Collier in 1957, reporting on a study using photographs to help clarify categories related to the quality of housing in Canada (Collier, 1957). Collier compared the results obtained through interviews alone with those obtained with the assistance of photographs and concluded that:

“The characteristics of the two methods of interviewing can be simply stated. The material obtained with photographs was precise and at times even encyclopedic; the control interviews were less structured, rambling, and freer in association. Statements in the photo-interviews were in direct response to the graphic probes and differed in character as the content of the pictures differed, whereas the character of the control interviews seemed rather to be governed by the mood of the informants.” (Collier, 1957, p. 856)

Despite the early reports of Collier’s work, Photo Elicitation techniques were not widely used or reported on until the 1980s. Harper (2002) describes the slow uptake of Photo Elicitation during the 1960s and 70s, leading to Wagner’s publication in 1978 of “photographs as interview stimuli” (Wagner, 1978, in Harper, 2002, p. 15). Harper then traces the later adoption of Photo Elicitation as “one of the four ways researchers might use photographs in standard research techniques” (Harper, 1987, 1988, in Harper, 2002, p. 15). Finally, he offers a more recent description of Photo Elicitation as a technique that puts images and visual research at the forefront of the research agenda of Visual Sociology, therefore demonstrating the usefulness of images based on the authority of the subject, rather than on the researcher (Harper, 2002). Photo Elicitation has slowly made its way into other fields. In the chapter about Photo Elicitation in his Visual Sociology book (2012), Harper offers a typology which argues that Photo Elicitation research has focused on: 1) applied studies of health; 2) teaching; 3) cultural behavior; 4) defining culture; 5) connection to place/things (culture); 6) cultures at work; and 7) Photo Elicitation as method, offering examples of the wide variety of topics and disciplines where Photo Elicitation has been used.

Photo Elicitation is not at all concerned with the site of image production, the site of the image itself, or the site of the image's distribution in Rose's critical visual methodology. All of the emphasis is on the fourth dimension, the site of audiencing of the image, and particularly its social modality - how is the image interpreted, by whom, and why (Rose, 2016), with little attention to the technological modality of audiencing (how is it displayed and where), or to the compositional modality of audiencing (what viewing positions are offered and its relation to other texts). Photo Elicitation is centered on the *use* of the photos as part of the interview process, and specifically on the *meanings* they elicit in the participant. Photographs can be taken by the researcher or a professional photographer affiliated with the researcher, or they can come from entirely different and unrelated contexts (magazines and newspapers, stock photography, or other sources of found visual imagery that were not created for the purposes of research, but are brought to it for the purpose of eliciting conversation in the interview). In some cases, Photo Elicitation studies have used participant-generated images. As we will see, these projects can be more accurately named Photostories.

Going beyond Collier's early observations of the difference between interviews with and without photographs noted above, Harper offers a more nuanced and profound description of the power of Photo Elicitation:

"I believe Photo Elicitation mines deeper shafts into a different part of human consciousness than do words-alone interviews. It is partly due to how remembering is enlarged by photographs and partly due to the particular quality of the photograph itself. Photographs appear to capture the impossible: a person gone; an event past. That extraordinary sense of seeming to retrieve something that has disappeared belongs alone to the photograph, and it leads to deep and interesting talk." (Harper, 2002, pp. 22–23)

Limitations of Photo Elicitation include the recognition that there are many ways in which Photo Elicitation interviews can take place, and that the sources for the images used in the interview process can vary greatly. The differences wrought by this variation in interview script and image provenance are not well mapped, and their successful use greatly depends on the skill and talent of the researchers. Moreover, in some cases, researchers report that the use of images in Photo Elicitation closes down, rather than opens up communication when subjects find it difficult to express their meanings in what they perceive to be self-evident in the images (Meo, 2010). There are important challenges in asking truly open-ended rather than leading questions in the Photo Elicitation interview. Leading questions based on the researchers' interpretation or meanings attributed to the image in use can easily –intentionally or unintentionally— influence the process and results. Finally, many researchers use Photo Elicitation to help diminish the power imbalance between researcher

and subject, however, this is something that is not inherent in Photo Elicitation. Without proper care, self-awareness, true respect and listening, power imbalances between researchers and participants can be perpetuated or even amplified using Photo Elicitation.

Recent examples of Photo Elicitation in LIS include understanding library patrons' perceptions of their library spaces (Haberl & Wortman, 2012), mapping information worlds of participants (including key institutional and interpersonal relationships) (Greyson, 2013), and exploring social representations of community multimedia centers (Vannini, Rega, Sala, & Cantoni, 2015).

Photostories

Photostories is a method we developed that sits at the intersection of Photovoice and Photo Elicitation as a visual research method. It draws from the power of participatory photography, in which subjects create or supply their own images, and from the power of Photo Elicitation, in which images are used as part of the research interview to explore deeper meanings and different experiences than those that would be elicited through interviews alone. Though the main purpose of Photostories is not to empower communities for social transformation, such empowerment is frequently a by-product of the participatory process to create images and reflect upon their significance. Because it is drawing from participant-generated images, the Photo Elicitation process of Photostories is more deeply connected to participants' lived experiences, resulting in research findings that are frequently emotionally strong, experientially meaningful, and visually compelling. As in Photovoice, the images that are created in the participatory process of Photostories do not stand alone as documentary evidence but draw their meaning from the interpretations elicited in the research interview. Nonetheless, the images provide powerful visual support and contrast to the stories that are told, helping with visual understanding of lived experiences and often a sense of empowerment for the participants, and offer rich visual materials to accompany dissemination of results.

Building on our earlier work with photography and video, we first introduced Photostories in 2014 as a research method for exploring information behaviors of migrants at the US-Mexico border (Yefimova, Neils, Newell, & Gomez, 2015). Using inexpensive digital cameras, we invited migrants in the shelters on the Mexican side of the border (recent deportees or recent arrivals to the border region) to take pictures of their daily lives and come back and talk with us about them. The extreme impermanence and precariousness of the daily lives of the migrants at the border was marked by sleeping outdoors or in humanitarian shelters, eating in soup kitchens and church halls, carrying all their belongings in a backpack or plastic bag, and uncertainty about where to go or what to do next. Some of the participants had never taken photos before and

had to be taught how to use the cameras, while others were not only at ease with cameras, but happy to have pictures to add to their Facebook accounts before returning the cameras to the researchers and participating in the research interview. While the participatory image-creation aspect of our project was not meant to empower or transform the realities of the subjects, many of them reported an enhanced sense of self-worth through taking pictures of their own realities. Pausing and reflecting on their own situation and experiences was empowering for them. Furthermore, seeing that their images and stories mattered and were taken seriously by university researchers was affirming for many participants, even if they would not directly benefit from the results of the research. The collections of images produced by participants was compelling, and the conversations elicited by the images were powerful, offering insights into the experience of transience and impermanence of migration *at the transition point* of crossing the border.

Additional studies in other settings that used Photostories as a method, combining participatory photography for image creation and use of those images for Photo Elicitation during the research interview, offered additional insights about Photostories as a visual method. In addition, this work has resulted in valuable LIS research, offering analysis and rich understanding of stories and images that speak to deep fibers of human experience in relation to their information practices, community engagement, and sense of belonging (Beltrán et al., 2018; Gomez, 2018; Gomez & Vannini, 2015, 2017; Gomez, Zubair, Berwick, & Morales, 2017; Vannini, Gomez, & Guajardo, 2016).

In a study reminiscent of Collier's comparison of interviews with and without images (Collier, 1957), we analyzed 215 participant-generated images from two field settings - with and without interviews. By "investigating the distance between visual content and participants' interpretation of the images they created [...] inspired by Pauwels' [(2010)] distinction between 'depicted' and 'depiction'" (Gomez M, Gomez, & Vannini, 2017, p. 3), we found that participants' interpretations using Photo Elicitation during the research interview offered literal or intrinsic interpretations of what is in the image, or added context and details to the images. In other cases, the images helped to elicit additional meanings, feelings or memories during the research interview, reaffirming that "participatory photography can help researchers in eliciting information and obtain better understanding of participants' context [...], provides insights on the participants' world views in profound and unexpected ways, and also offers an opportunity for participants to reflect on the technique itself." (Gomez M et al., 2017, p. 9).

The participatory photo production and use of photos in the interview process enacted through Photostories is concerned with the social modality of the site of production of the image (Rose, 2016) (who, when, who for, why), the visual meanings of the image itself, and most importantly, site of audiencing of the image (primarily social: how interpreted, by whom, why). It also offers

opportunities for dissemination of images in combination with stories as part of the research process.

The limitations and ethical considerations of Photostories include issues already raised in Photovoice and Photo Elicitation, particularly in regard to issues of confidentiality and privacy with participant-generated images, especially in vulnerable situations, e.g., undocumented migrants); issues of power (exacerbating vs. minimizing power differentials between researcher and subjects); and voice (whose voice is amplified). Additional challenges include asking leading questions in lieu of truly open-ended questions, variations in interview script during research interview, and images closing rather than opening conversations. Finally, there are issues of authorship and use of images and stories, especially when subjects are no longer reachable.

Photostories is different from Photovoice in that it is not primarily concerned with participation as a tool for empowerment and social transformation (although it can contribute to it), but with research results. In Photovoice, photos are not an end in themselves, but an instrument to promote awareness (*conscientização*) and social transformation. In Photostories, on the other hand, photos are also not an end in themselves; rather than being mainly instruments for awareness, they are mainly instruments to probe experiences and meanings during research interviews - in the style of Photo Elicitation, but in this case, using participant-generated images.

Photostories differs from Photo Elicitation in that it explicitly uses participant-generated images rather than researcher-generated or other found images. By doing so, images used in the research interview are closer to participants' experiences and help the researcher explore deeper or unexpected meanings that are frequently hard to elicit using an interview alone. As discussed earlier, some Photo Elicitation studies have used participant-generated images, something we are calling Photostories to differentiate them from the predominantly non-participant generated images of Photo Elicitation.

Here are some examples of Photostories used in LIS: Photostories has been used to explore information practices among migrants (Gomez & Vannini, 2015; Newell, Gomez, & Guajardo, 2016; Yefimova et al., 2015) and among indigenous communities in Mexico (Gomez, Ramirez, & Berwick, 2019; Gomez et al., 2017). In addition, Guajardo used Photostories to investigate information behaviors of undocumented students at the University of Washington (Guajardo, 2018) and Carrera-Zamanillo used it to investigate food and culture behaviors among Latino immigrants in Washington State (Carrera Zamanillo, 2017).

3. Procedures for Photostories Research

Below are more detailed guidelines for research using Photostories as a visual

research method.

(1) **Field entry and recruitment of participants** (challenges of gaining trust).

As in any research, you need to gain entry to the field setting as well as build the trust required for successful recruitment of participants. In our research, we work in partnership with trusted local partners to gain entry, and then take the time to develop the relationship, rapport and trust so that participants feel it is safe to participate. Frequently, once the first few participants engage, it becomes easier for others to follow suit. Taking pictures can be seen as fun or entertaining, which helps with recruitment.

(2) **Instructions and prompts** (challenges of informed consent).

Once subjects are willing to participate, it is particularly important to obtain **informed consent**, including consent and release to use pictures as part of research results. (See sample consent forms in appendix.) Participants can then use their own camera/phone or use one supplied by the researcher. The increasing use of mobile phones that have cameras and the availability of inexpensive digital cameras, make this aspect of image creation relatively easy and inexpensive. If using researcher-supplied digital cameras, it is important to offer basic **instructions** on their use, especially if subjects have never used digital cameras before. We have learned not to focus on photo technique or composition, but on basic operation of the equipment, and to emphasize that there are no bad photos - any images they take will work, and that they can always delete or not include images they don't want. It is also helpful to give subjects an idea of number of photos you expect to use in the end (we recommend between 3 and 10). (See sample instructions in appendix.)

Two additional considerations are important: **Ethical guidelines** for taking pictures need to include asking permission before taking photos of people, especially children; to avoid taking pictures that can endanger or embarrass the photographer or the people being photographed; and to explicitly call out the possibility of concealing subjects' identities by not including their faces or other identifiable features. (See sample ethical guidelines in appendix.) **Suggest prompts** for pictures to take - not as a checklist, but as possible ideas. Vague prompts can be disconcerting for participants, so you'll want to strike a balance between suggesting specific things (e.g., things you like to eat) and things that represent an idea (e.g., something that represents your idea of home). Vague prompts can be confusing e.g., avoid asking participants to take pictures of their life), and prompts that are too specific can close down opportunities for creative or unexpected things to emerge (e.g., avoid asking participants to take a picture of their shoes unless you have a good reason to do so). (See sample prompts in appendix.)

(3) **Photo collection** (challenges of getting images in context).

This is where the pictures are made, or the collection of images selected. Different options include participants taking pictures over several days or staying on site and finding things to take pictures of over an hour or two. They can also choose pre-existing images on their phone or camera, from their Facebook or other social media accounts, or from photo albums. Keep in mind that not all images need to be photos; they can also include objects, drawings, paintings, etc. In some cases, we have had participants describe what they want to show, and then have them ask someone from their community or from the research team to take pictures on their behalf. Finally, in some unique circumstances we have discussed what we called imaginary pictures, or pictures that show something participants wished they could show during the interview but did not have on hand. After the interview we would look for a similar or related image and check with participants to see if it was a good visual expression of their idea. Bearing in mind that the main purpose of the research is not the image itself but its meaning for the participants, the actual creation of the images can take many different shapes and forms depending on the context of the research.

(4) Selection of images and debriefing interview (challenges of truly open-ended questions).

When participants return for the research interview, select the pictures they will talk about. They will most likely have viewed them all already (unlike with film photos, where they need to be developed and printed), but it is a good idea to suggest they view them all and select the ones to retain for the interview. Using tablets instead of phones in this phase makes it easier because of the larger screen size; otherwise, consider transferring the files from phone/camera to a laptop for viewing and storage. It is useful to record the audio of the interview on a separate device, making sure that you clearly identify the photo being talked about to maintain the link between photo and story. Ask truly open-ended questions, without assuming you know what the picture represents. Ask about what is in the picture, what is not in the picture, why it was taken or selected, etc. Probe for feelings, memories or emotions related to the image. This is the rich and sacred space where the meanings, interpretations and lived experiences of the participants are elicited, using the images as conversation prompts. (See sample interview guide in appendix.

(5) Transcription, translation and coding (challenges of maintaining link between images and stories; distance to original voice)

You can prepare a verbatim or non-verbatim transcription, depending on your needs and resources, and translate if research is done in multiple languages. We find that texts are most useful when edited for clarity and brevity, while making sure you are faithful to the original voice of the participant. Make sure you maintain the linkage between image and its corresponding text. Qualitative

coding, if needed, can be done on transcripts, preferably with the linked images for full context and details. See general-purpose guides for qualitative coding, such as Saldaña (2015).

(6) Analysis and dissemination (challenges of validation and making results useful to participants).

Analyze the texts with their related images for emerging or pre-determined themes. You have an opportunity for visual analysis of images collected, if desired, even though they are necessarily incomplete and not meant to be stand-alone; their meaning depends on the interpretation assigned by the interview (audience). Prepare preliminary results in a way that is understandable and useful to your participants and share with them for critique and commentary, if possible. Often forgotten, this step can give important validation, or point to missed meanings and associations. Dissemination of results can include visual and story exhibitions and reports, in addition to more traditional academic papers. Online dissemination offers additional opportunities for presentation and organization of findings and results.

Photostories offers a flexible and versatile toolset to elicit lived experiences from the perspective of participants, enhanced by the power of participant-generated images combined with Photo Elicitation for visual research in LIS and other social science disciplines. These guidelines are designed to help researchers adapt and adjust as needed to successfully deploy Photostories as a research method.

4. Conclusions: Contributions of Photostories

Photostories is a rich and powerful visual research method that draws from Photovoice and Photo Elicitation. While Photovoice is primarily concerned with the participatory process of community empowerment, and Photo Elicitation is primarily concerned with inserting photos into the research interview, Photostories uses participant-generated images (as in Photovoice) and inserts them as part of the research interview (as in Photo Elicitation). This generates research results with richness, depth and insight from the perspective of the participants, in ways that are not easy to achieve with interviews alone, participatory photography alone, or with photo elicitation using third party photographs.

Visual methods are valuable in investigating human information behavior, despite relatively little use in LIS. Other disciplines have made wider use of visual methods, such as Photovoice (originated in public health) and Photo Elicitation (originated in anthropology). Both now have more widespread use across other disciplines and offer strong potential for contribution in LIS research. There is some confusion, and frequent blurring of the boundaries between Photovoice and Photo Elicitation; they are sometimes used

interchangeably, which leads to more confusion. Photovoice focuses on participants' generation of images as part of an empowerment and critical education process for social transformation, while Photo Elicitation focuses on the use of images (most frequently researcher-generated or other found images) inserted as part of research interviews.

Our proposed approach, Photostories, combines the power of participant-generated images with the power of image elicitation, using the participant-generated images as part of the research interview process. Unlike Photovoice, Photostories is not mainly focused on empowerment and social transformation, but on rich research findings, although a sense of empowerment is frequently reported by participants. Unlike Photo Elicitation, Photostories uses participant-generated images to elicit new and deeper insights about their lived experiences and meanings, rather than researcher-generated, photographer-generated, or other found images. In this way, Photostories combines the power of images with the meaning of narrative and testimony. Through Photostories, the researcher can elicit new meanings and experiences not easily available through interviews alone, as well as obtain multiple perspectives, perceptions and feelings. Furthermore, through Photostories, participants frequently feel empowered and have a renewed sense of agency that relates to the empowerment goals of Photovoice.

Visual research methods such as Photostories have great potential to broaden and deepen the understanding of human behavior in LIS research.

References

- Beltrán, M., Oleta, D. P., Tafurt, M. del M., Iribe, Y., Vergara, G., Gomez, R., & Berwick, J. (2018). *Radio Ach' Lequic'op: Voice of Tseltal Maya Communities in Chiapas*. One Equal Heart.
- Berger, J. (2008). *Ways of seeing* (Vol. 1). Penguin uK.
- Carrera Zamanillo, M. (2017). *Cultivando Comunidad: A Community-Based Approach to Study the Link between Cultural and Environmental Identities in Latinxs Living in the Seattle Metropolitan Area* (Doctoral Dissertation). University of Washington, Seattle, WA.
- Catalani, C., & Minkler, M. (2010). Photovoice: A Review of the Literature in Health and Public Health. *Health Education & Behavior*, 37(3), 424–451. <https://doi.org/10.1177/1090198109342084>
- Clark-Ibáñez, M. (2004). Framing the Social World With Photo-Elicitation Interviews. *American Behavioral Scientist*, 47(12), 1507–1527. <https://doi.org/10.1177/0002764204266236>
- Collier, J. (1957). Photography in anthropology: A report on two experiments. *American Anthropologist*, 59(5), 843–859.
- Enser, P. (2008). The evolution of visual information retrieval. *Journal of Information Science*, 34(4), 531–546. <https://doi.org/10.1177/0165551508091013>
- Evans-Agnew, R. A., & Rosemberg, M.-A. S. (2016). Questioning Photovoice Research: Whose Voice? *Qualitative Health Research*, 26(8), 1019–1030. <https://doi.org/10.1177/1049732315624223>

- Feinberg, M. (2017). Material Vision. *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*, 604–617. ACM.
- Freire, P. (1970). *Pedagogy of the Oppressed*. Bloomsbury Academic.
- Given, L. M., Opryshko, A., Julien, H., & Smith, J. (2011). Photovoice: A participatory method for information science. *Proceedings of the American Society for Information Science and Technology*, 48(1), 1–3.
- Given, L. M., Winkler, D. C., Willson, R., Davidson, C., Danby, S., & Thorpe, K. (2016). Watching young children “play” with information technology: Everyday life information seeking in the home. *Library & Information Science Research*, 38(4), 344–352. <https://doi.org/10.1016/j.lisr.2016.11.007>
- Gomez M, L., Gomez, R., & Vannini, S. (2017). The power of Participatory Photography in ICTD programs: freedom to explore beyond images. *Proceedings of HICSS 50*. Presented at the Hawaii. Hawaii.
- Gomez, R. (2018). Success is being an example: Trajectories and notions of success among Latinx faculty, staff, and students in academia. *Journal of Latinos and Education*, 0(0), 1–19. <https://doi.org/10.1080/15348431.2018.1507909>
- Gomez, R., Ramirez, Y. I., & Berwick, J. (2019). Radio, library, and storytelling: Building an information system for indigenous community development in Chiapas, Mexico. *The Electronic Journal of Information Systems in Developing Countries*, 85(1), e12062. <https://doi.org/10.1002/isd2.12062>
- Gomez, R., & Vannini, S. (2015). *Fotohistorias: Participatory Photography and the Experience of Migration*. Seattle, WA.: CreateSpace Independent Publishing Platform.
- Gomez, R., & Vannini, S. (2017). Notions of home and sense of belonging in the context of migration in a journey through participatory photography. *The Electronic Journal of Information Systems in Developing Countries*, 78(1), 1–46.
- Gomez, R., Zubair, C., Berwick, J., & Morales, M. (2017). *Living Fully - Vivir Plenamente - Lekil Cuxlejalil: Lekil Cuxlejalil among Tseltal Mayan Communities in Chiapas - Lekil Cuxlejalil en las comunidades Tseltal Maya en Chiapas*. One Equal Heart Foundation.
- Greyson, D. (2013). Information world mapping: A participatory, visual, elicitation activity for information practice interviews. *Proceedings of the 76th ASIS&T Annual Meeting: Beyond the Cloud: Rethinking Information Boundaries*, 106. American Society for Information Science.
- Guajardo, V. (2018). *UndocuLives: Understanding the Information Behavior, Needs, and Networks of UndocuStudents in Higher Education* (Doctoral Dissertation, University of Washington, Information School). Retrieved from https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/41811/Guajardo_washington_0250E_18245.pdf?sequence=1&isAllowed=y
- Haberl, V., & Wortman, B. (2012). Getting the picture: Interviews and photo elicitation at Edmonton Public Library. *LIBRES: Library and Information Science Research Electronic Journal*, 22(2), 1.
- Harper, D. (2002). Talking about pictures: A case for photo elicitation. *Visual Studies*, 17(1), 13–26. <https://doi.org/10.1080/14725860220137345>
- Harper, D. (2012). *Visual sociology*. Routledge.
- Hartel, J., Lundh, A., Sonnenwald, D., & Foster, N. F. (2012). State of the art/science: Visual methods and information behavior research. *Proceedings of the American Society for Information Science and Technology*, 49(1), 1–4. <https://doi.org/10.1002/meet.14504901009>
- Hemmig, W. S. (2008). The information-seeking behavior of visual artists: a literature review. *Journal of Documentation*, 64(3), 343–362. <https://doi.org/10.1108/00220410810867579>

- Hicks, A., & Lloyd, A. (2018). Seeing information: Visual methods as entry points to information practices. *Journal of Librarianship and Information Science*, 50(3), 229–238. <https://doi.org/10.1177/0961000618769973>
- Joanou, J. P. (2009). The bad and the ugly: ethical concerns in participatory photographic methods with children living and working on the streets of Lima, Peru. *Visual Studies*, 24(3), 214–223. <https://doi.org/10.1080/14725860903309120>
- Kairam, S., Riche, N. H., Drucker, S., Fernandez, R., & Heer, J. (2015). Refinery: Visual Exploration of Large, Heterogeneous Networks through Associative Browsing. *Computer Graphics Forum*, 34(3), 301–310. <https://doi.org/10.1111/cgf.12642>
- Keim, D. A., Mansmann, F., Schneidewind, J., Thomas, J., & Ziegler, H. (2008). Visual Analytics: Scope and Challenges. In S. J. Simoff, M. H. Böhlen, & A. Mazeika (Eds.), *Visual Data Mining: Theory, Techniques and Tools for Visual Analytics* (pp. 76–90). https://doi.org/10.1007/978-3-540-71080-6_6
- Luo, L. (2017). Photovoice: a creative method to engage library user community. *Library Hi Tech*, 35(1), 179–185.
- Margolis, E., & Pauwels, L. (2011). *The SAGE handbook of visual research methods*. Retrieved from <http://public.eblib.com/EBLPublic/PublicView.do?ptiID=786862>
- Matusiak, K. K., Rorissa, A., Albertson, D., & Yoon, J. (2016). How is image seeking and use studied: theoretical models and research methods. *Proceedings of the 79th ASIS&T Annual Meeting: Creating Knowledge, Enhancing Lives through Information & Technology*, 10. American Society for Information Science.
- Meo, A. I. (2010). Picturing Students' Habitus: The Advantages and Limitations of Photo-Elicitation Interviewing in a Qualitative Study in the City of Buenos Aires. *International Journal of Qualitative Methods*, 9(2), 149–171. <https://doi.org/10.1177/160940691000900203>
- Newell, B. C., Gomez, R., & Guajardo, V. E. (2016). Information seeking, technology use, and vulnerability among migrants at the United States–Mexico border. *The Information Society*, 32(3), 176–191.
- Pauwels, L. (2010). Visual Sociology Reframed: An Analytical Synthesis and Discussion of Visual Methods in Social and Cultural Research. *Sociological Methods & Research*, 38(4), 545–581. <https://doi.org/10.1177/0049124110366233>
- Pollak, A. (2017). Visual research in LIS: Complementary and alternative methods. *Library & Information Science Research*, 39(2), 98–106. <https://doi.org/10.1016/j.lisr.2017.04.002>
- Rose, G. (2016). *Visual methodologies: an introduction to the interpretation of visual materials* (4th ed). London; Thousand Oaks, Calif.: SAGE Publications.
- Saldana, J. (2015). *The Coding Manual for Qualitative Researchers* (3rd edition). Los Angeles ; London: SAGE Publications Ltd.
- Snyder, J. (2014). Visual representation of information as communicative practice. *Journal of the Association for Information Science and Technology*, 65(11), 2233–2247.
- Snyder, J., Baumer, E. P., Volda, S., Adams, P., Halpern, M., Choudhury, T., & Gay, G. (2014). Making things visible: Opportunities and tensions in visual approaches for design research and practice. *Human–Computer Interaction*, 29(5–6), 451–486.
- Sun, G.-D., Wu, Y.-C., Liang, R.-H., & Liu, S.-X. (2013). A survey of visual analytics techniques and applications: State-of-the-art research and future challenges. *Journal of Computer Science and Technology*, 28(5), 852–867.
- Vannini, S., Gomez, R., & Guajardo, V. (2016). Security and Activism: Using participatory photography to elicit perceptions of Information and Authority among Hispanic migrants in the US. *ICConference 2016 Proceedings*.
- Vannini, S., Rega, I., Sala, S., & Cantoni, L. (2015). Using Photo-Elicitation to

Explore Social Representations of Community Multimedia Centers in Mozambique. *The Electronic Journal of Information Systems in Developing Countries*, 67(0). Retrieved from <http://www.ejisdc.org/ojs2/index.php/ejisdc/article/view/1297>

Wang, C., & Burris, M. A. (1994). Empowerment through photo novella: Portraits of participation. *Health Education Quarterly*, 21(2), 171–186.

Wang, C., & Burris, M. A. (1997). Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment. *Health Education & Behavior*, 24(3), 369–387. <https://doi.org/10.1177/109019819702400309>

Wang, C., Burris, M. A., & Ping, X. Y. (1996). Chinese village women as visual anthropologists: A participatory approach to reaching policymakers. *Social Science & Medicine*, 42(10), 1391–1400. [https://doi.org/10.1016/0277-9536\(95\)00287-1](https://doi.org/10.1016/0277-9536(95)00287-1)

Yefimova, K., Neils, M., Newell, B. C., & Gomez, R. (2015). Fotohistorias: Participatory Photography as a Methodology to Elicit the Life Experiences of Migrants. *Proceedings of HICSS 48*. Presented at the Hawaii. Hawaii.

Appendices: Additional Resources

Sample [consent forms](#)

Sample [release forms for image use](#)

Sample [instructions for new camera users](#)

Sample [prompts and ethical guidelines for pictures](#)

Sample [interview guides](#)

Sample [brief description of Photostories as part of larger data collection project](#)